Tasmania

Certificate of Accreditation

On-Site Waste Water Management System

This Certificate of Accreditation is herby issued by the Minister for Justice and Workplace Relations pursuant to Section 59(2) of the Building Act 2000 and Part G2 of the Tasmanian Plumbing Code 2006.

System:	**Gough Plastics Hybrid Toilet System**
Manufacturer/ Supplier:	**Gough Industries Pty Ltd, ACN:010 028 547**
Trading as:	**Gough Plastics**
Of:	**833 Ingham Road, Bohle, Townsville, 4810**

*This is to certify that the **Gough Plastics Hybrid Toilet System,** models 6P Single Pedestal; 10P Single Pedestal; 25P Single Pedestal; 25P Double Pedestal; 50P Double Pedestal; 75P Three Pedestal; 100P Four Pedestal; and 150P Six Pedestal (the system) as described in Schedule 1, has been accredited as an on-site waste water management system for use in plumbing installations in Tasmania. *This accreditation is subject to the conditions of accreditation and permitted uses specified in Schedule 2, and in accordance with the Tasmanian Plumbing Code 2006.*

Kerrie Crowder
Director of Building Control
delegate of the Minister for Justice and Workplace Relations

Date of Issue: 27 October 2011 **Certificate No: BSR0365/2011**

This Certificate of Accreditation is in force until 26 October 2016

SCHEDULE 1: Specification

Gough Plastics Hybrid Toilet System

General Description

The Gough Plastics Hybrid Toilet System ('the system') collects and treats domestic wastewater.

For a typical illustration of the system refer to Appendix A.

For Engineering drawings refer to Appendix B.

System Components include (refer to Appendix C for specifications):

- Pedestal drop toilet; (up to 2 pedestals per primary tank);
- Primary tanks, filled with water; there may be up to 3 primary tanks;
- Secondary tank containing filter media and baffles;
- Disposal area trench, subsoil (Land Application System);
- Vent pipe (on primary tank) with powered rotary vent;
- Hand pump and cistern on micro flushing model.

The systems are designed to treat a total daily toilet only discharge from the following Equivalent Persons (EP):

6EP, 10EP, 25EP, 50EP, 75EP, & 150EP respectively.

Energy consumption

Estimated Electricity Usage for a 4 person household with average wastewater flows and loads:

Electrical Equipment	Watts	Daily operation (hours) specified by manufacturer	kWh/year	Estimated ~Annual Cost @ ~$0.20/kWh
McVent #1	2.5	10	9	$2.00

Description of Treatment Processes

The Hybrid toilet is a non-flushing or micro flushing displacement toilet.

The system consists of a pedestal drop toilet that feeds deposited waste into a primary tank filled with water. When the system is in use effluent is displaced and flows from the primary tank and drains to the secondary tank which then flows to an absorption trench.

The primary tank receives undiluted waste and its function is to separate solids and digest the waste. The liquid retention time in the primary tank varies between 45-128 days depending on the model installed. The primary tank retains sludge for approx 4 - 7 years, until pumped out.

The secondary tank is filled with media that further treats the effluent to a secondary quality (under controlled conditions) before its released to an absorption trench.

The secondary tank also contains baffles, which facilitates upward and downward flow of the effluent causing it to come into contact with anaerobic and aerobic zones within the system. Liquid retention time in the secondary tank varies between 25-27 days, which is also dependant on the model installed..

The primary tank is de-sludged every four to seven years or as deemed necessary by the service agent.

Under normal operating conditions the *system* is capable of achieving better then conventional septic tank standard (BOD_5 10 g/m^3 and a TSS 10 g/m^3[3)].

Schedule 2: Conditions of Accreditation

1.0 Definitions

In this schedule:

AS/NZS 1547 means the Joint Australian/New Zealand Standard '*AS/NZS 1547:2000 On-site domestic-wastewater management'*;

AS/NZS 3000 means the Joint Australian/New Zealand Standard '*AS/NZS 3000:2000 Wiring rules'*

BOD_5 means '5-day Biochemical Oxygen Demand';

Council means 'the Municipal Council having jurisdiction';

Designer means 'a person who has a specialty in the area of designing on-site waste water management system installations and may include but not be restricted to appropriately trained professional engineers, soil scientists, land surveyors and plumbers';

Director means 'the Director of Building Control';

g/m^3 means grams per cubic metre

Manufacturer means '**Gough Industries Pty Ltd'**;

NATA means 'National Association of Testing Authorities';

PCA means 'Plumbing Code of Australia 2004';

Permit means 'a Permit issued by the *council* pursuant to section 82 of the *Building Act 2000'*;

Permit authority means 'a person or body authorised for that purpose by the *council* of the municipal area in which the on-site waste water management system is installed';

Supplier means 'the party that is responsible for ensuring that products meet and, if applicable, continue to meet, the requirements on which the certification is based. The supplier for the ***Gough Plastics Hybrid Toilet System*** **is Gough Plastics'**

System means '***Gough Plastics Hybrid Toilet System'*.**

TPC means the 'Tasmanian Plumbing Code 2006'.

TSS means 'Total Suspended Solids'.

2.0 General Conditions

2.1 This Certificate of Accreditation is valid for five (5) years from the date of issue or until withdrawn by the *Director* and is not transferable.

2.2 The *system* must be supplied, constructed and installed in accordance with the design submitted and accredited by the *Director*.

2.3 The *system* must not be installed in a plumbing installation other than in accordance with the conditions of permit issued by the *Permit Authority*.

2.4 The *system* must not be used in a plumbing installation other than in accordance with the conditions of permit issued by the *Permit Authority*.

2.5 The *system* is only to be used where in the opinion of the *Permit Authority*: -
(a) The *system* provides for adequate sanitation where no sewerage system is available;
(b) The *system* is capable of being installed and operated in accordance with the *manufacturers* instructions and the conditions of accreditation;
(c) the *system* will be accessible for the collection of effluent by the removal vehicle/tanker at all times; and

(d) the installation site is suitable for the acceptance and further treatment of the wastewater generated from the *system*.

2.6 Where the *system's* pedestal(s) is to be installed within a building containing habitable rooms it must be installed in a separate sanitary compartment and be separated from habitable rooms by way of a permanently ventilated airlock (which may be a circulation space) providing access to the compartment. The minimum ventilation required must be the greater of:-
(a) 8000 mm^2 ; or
(b) 1/500th of the floor area of the airlock/circulation space.

2.7 Subject to condition 2.5, the system must not be installed within 2m of neighbouring buildings containing habitable rooms.

2.8 All *system* access openings and covers must be sealed, watertight, load-bearing and non-accessible by children.

2.9 All tanks used in the *system* must be selected from the range of tanks detailed in the table below and verified as complying with AS/NZS 1546.1:2008.

Range of tanks authorised for use in Hybrid Toilet Systems:

Number of persons	Type	Capacity - Litres
5 & 10	PST	1000
10	SST	600
25	PST	2500
25	SST	1000
50	PST	2500 & 5500
75, 100 & 150	PST & SST	5500

PST = Primary Septic tank SST = Secondary Septic Tank

2.10 Each *system* must be permanently and legibly marked on a non-corrosive metal plaque or equivalent, attached to the lid with the following information:

- The brand and model name or designation of the *system*;
- The *manufacturer's* name or registered trademark;
- Top load limitations; and
- The month and year of manufacture.

2.11 The *supplier* must supply the owner and occupier, of each installation with a user manual setting out the following:

(a) the treatment process;
(b) procedures to be followed in the event of a *system* failure;
(c) emergency contact number;
(d) care, operation, monitoring and maintenance requirements; and
(e) inspection and sampling procedures to be followed as part of the on-going monitoring and program required by the *permit authority*.

2.12 Any proposed modifications to the *system's* specified processes, equipment, materials, fittings or manuals must have prior authorisation in writing from the *Director* and may be subject to additional verification or testing.

2.13 The *supplier* must provide the following information to each *permit authority* where it is intended to install a *system* in their jurisdiction:

- Statement of warranty

- Statement of service life
- Quality Assurance Certification
- Installation Manual
- Service Manual
- Owner's Manual
- Service Report Form
- Engineering Drawings on A3 format
- Detailed Specifications
- Certificate of Accreditation and Schedules.

2.14 At each anniversary of the accreditation date the *supplier* must submit to the *Director* a list of all *systems* installed in Tasmania during the previous 12 months. The *Director* may randomly select up to 10% of the installed systems from each year of installation. The *Director* will notify the *supplier's* nominated *NATA* accredited laboratory which systems are to be sampled and tested for BOD_5 and *TSS*. The sampling and testing of the selected *systems* is to be done at the *supplier's* expense. The following results must be reported to the *Director:*

- Address of premises;
- Date inspected and sampled;
- Sample identification number;
- BOD_5;
- *TSS*; and
- Service history

2.15 When granting a *permit* the *permit authority* is to satisfy itself that the *designer's* choice of the *system* configuration is optimal for the proposed use and site conditions.

2.16 Prior to the granting of a *permit* to install a *system* the following reports must be submitted with an application to the *permit authority*:

Site-and-soil evaluation report

The site and soil evaluation report is to detail results of an assessment of the individual lot(s) for the public health, environmental, legal and economic factors which are likely to impinge on the location and design of a land-application system. (Refer to AS/NZS 1547 Clause 4.1.5 and associated appendices to 4.1).

Design report

The Design Report is to include the following:

(a) Relevant aspects of the Site-and-soil Evaluation Report.

(b) A report on the selection of the land-application system. (Refer to AS/NZS 1547, Clause 4.2.4 and associated appendices to Clause 4.2 for further information).

(c) A report on the selection of the wastewater-treatment unit. (Refer to AS/NZS 1547, Clause 4.3.6 and associated appendices to Clause 4.3 for further information).

(d) Sufficient information to show that the relevant performance requirements set out in the *PCA* have been met.

(d) A loading certificate which sets out the design criteria and the limitations associated with use of the *system* and incorporates such matters as:

(i) *System* capacity (number of persons and daily flow);

(ii) Summary of design criteria;

(iii) The location of and use of reserve areas;

(iv) Use of water efficient fittings, fixtures, or appliances;

(v) Allowable variation from design flows (peak loading events);

(vi) Consequences of changes in loading (due to varying wastewater characteristics);

(vii) Consequences of overloading the *system*;

(viii) Consequences of underloading the *system*;

(ix) Consequences of lack of operation, maintenance and monitoring attention; and

(x) Any other relevant considerations related to the use of the *system*.

2.17 The following reports must be submitted to the *permit authority* and owner and be made available to the *Director* upon request after *commissioning* of the *system*:

Installation and commissioning report

The Installation and Commissioning Report is to cover the 'as-constructed' records of the *system* installation together with the results of *commissioning* tests to demonstrate correct construction and installation and is to be provided to the owner and *permit authority* on completion of the work. (Refer to and AS/NZS 1547 Clause 4.5.6.3 and associated appendices to Clause 4.5).

Inspection and Maintenance Report

Maintenance reports cover ongoing inspection and maintenance operations in order to monitor the operation of the installation. (Refer to AS/NZS 1547 Clause 3.7.4 and associated Appendix 3A).

2.18 Effluent distribution by sub-surface application may be permitted where the *Permit Authority* is satisfied that the application for a *permit* to install the *system* has demonstrated that the:

(a) effluent can be retained within the authorised land application area;

(b) where applicable the land application system has been designed and is capable of being installed and maintained in accordance with *AS/NZS 1547*; and

(c) the location of the land application system satisfies the relevant requirements of the *State Policy on Water Quality Management 1997*.

3.0 Installation, Commissioning and Operation

3.1 The installation, commissioning and operation of the *system* must comply with the conditions of accreditation and the *manufacturer's* instructions.

3.2 All plumbing work carried out in connection with the *system* installation must satisfy the requirements of the *Building Act 2000*, *TPC* and the Tasmanian Plumbing Regulations and be carried out by a licensed plumber (drainer) with appropriate competencies.

3.3 All installations of the *system* must satisfy the installation requirements set out in *Appendix A1 – On-site Waste Water Management Systems* of the *TPC*.

3.4 All access openings must be at or above ground level, or be able to be extended to the finished ground level if installed below ground.

3.5 Inspection openings must be located to give access, at finished ground level, to the inlet fittings to absorption trenches and to provide for the ongoing monitoring of trench performance.

3.6 All electrical work must be carried out by a licensed electrician and in accordance with relevant provisions of *AS/NZS 3000*.

3.7 Where the *system* requires a 240V AC power supply, a weather-proof isolating switch must be provided at the power outlet. The power supply must have its own clearly marked designated circuit breaker in the electricity supply fuse box.

3.8 Each *system* installation must be inspected and checked by the *designer* or the designer's agent. The *designer* on completion is to prepare a report and certify that the installation has been constructed, installed and *commissioned* in accordance with its design, the conditions of accreditation and any additional requirements set out in the *permit*. The designers report is to contain details of inspections and commissioning test results.

3.9 Copies of the following reports/certificates must be submitted to the *council* and the owner as soon as practicable after the commissioning of the *system* and after each scheduled or unscheduled service or inspection for the period specified in the *permit*:

(a) The initial plant installation and commissioning report;

(b) All required laboratory analytical test reports; and

(c) All inspection and maintenance reports

3.10 Copies of any report or certificate required by the conditions of accreditation must be made available to the *Director* on request.

3.11 The *designer* is to provide a statement warning the user of any items and products that must not be placed in the *system*. For example, disposable nappies, cleaning chemicals.

3.12 To verify that the *system* is commissioned, sampling must be carried out, by a *council* approved person, for BOD_5, *TSS*. The samples are to be tested and reported on by a NATA certified laboratory.

4.0 Maintenance and monitoring

4.1 Each installation must be serviced at not greater than 12 monthly intervals in accordance with the conditions of accreditation, the conditions of *permit* and *manufacturer's* requirements.

Notes:

1. Other than electrical work, only a licensed plumber can carry out the maintenance and required monitoring of the *system*.

2. The licensed plumber may need to complete training by the *supplier* before carrying out any maintenance on the *system*.

4.2 Immediately after commissioning, system performance monitoring of each installation is to commence and must be carried out at not less than 6 monthly intervals and in accordance with the conditions of permit.

4.3 The owner of the *system* must enter into and maintain a maintenance contract with the *council*, the *supplier* of the *system*, or other *council* approved plumbing contractor.

4.4 The owner must enter into an agreement with the *council* to maintain the maintenance contract where that contract is with the *supplier* of the *system* or other *council* approved plumbing contractor.

4.5 The *system* must be operated and maintained to ensure it performs continuously and without any intervention between inspections carried out by the *council* approved plumbing contractor.

4.6 A service report is to be prepared by the plumbing contractor who carried out the work detailing the inspection of the installation and the results of all servicing tests and conditions at the completion of all scheduled or unscheduled services or inspections.

4.7 The service report is to be accompanied by a signed document certifying that the system is operating and performing adequately.

4.8 A copy of the service report and certifying document is to be provided to the occupant and *council*. Each service report is to contain a statement reminding the user about items and products that must not be placed in the *system*.

4.9 Each service must include monitoring the operation of the *system* and associated land application system.

4.10 The *system* is to be de-sludged strictly in accordance with the *manufacturer's* recommendations and the sludge is to be disposed of in accordance with the Tasmanian Biosolids Reuse Guidelines and the conditions of *permit.*

4.11 Only persons with a waste transport business Environment Protection Notice are to be engaged for the removal, transporting and disposal of accumulated sludge removed from the *system.*

4.12 Any waste material removed from the system must be collected and disposed of or utilised by an approved facility or agency.

4.13 Measures are to be put in place during servicing that will protect the environment, personnel and any other persons who could be affected by the activity.

4.14 The monitoring, servicing and reporting of the installation must include but not be restricted to the following matters, as appropriate:

(a) Odour;

(b) Check slime growth on media and report on condition of the media;

(c) Check vent pipe (on primary tank) with powered rotary vent;

(d) Check and report on sludge level and de-sludging;

(e) Check and record operation of land application area;

(f) Check toilet pedestal and waste chute; and

(g) Check flush pump mechanism and cistern, if fitted.

5.0 Performance

5.1 The non-flush systems are accredited for toilet flows not exceeding 7.2, 12, 30, 60, 90, 120 and 180 litres per day respectively for the 6 EP, 10 EP, 25 EP, 50 EP, 75 EP, 100 EP and 150 EP systems.

5.2 The micro-flush systems are accredited for toilet flows not exceeding 21, 35, 87, 175, 262, 350 and 525 litres per day respectively for the 6 EP, 10 EP, 25 EP, 50 EP, 75 EP, 100 EP and 150 EP systems.

5.3 The systems are accredited for use by maximum equivalent persons of 6 EP, 10 EP, 25 EP, 50 EP, 75 EP 100 EP and 150 EP respectively.

6.0 Permitted uses

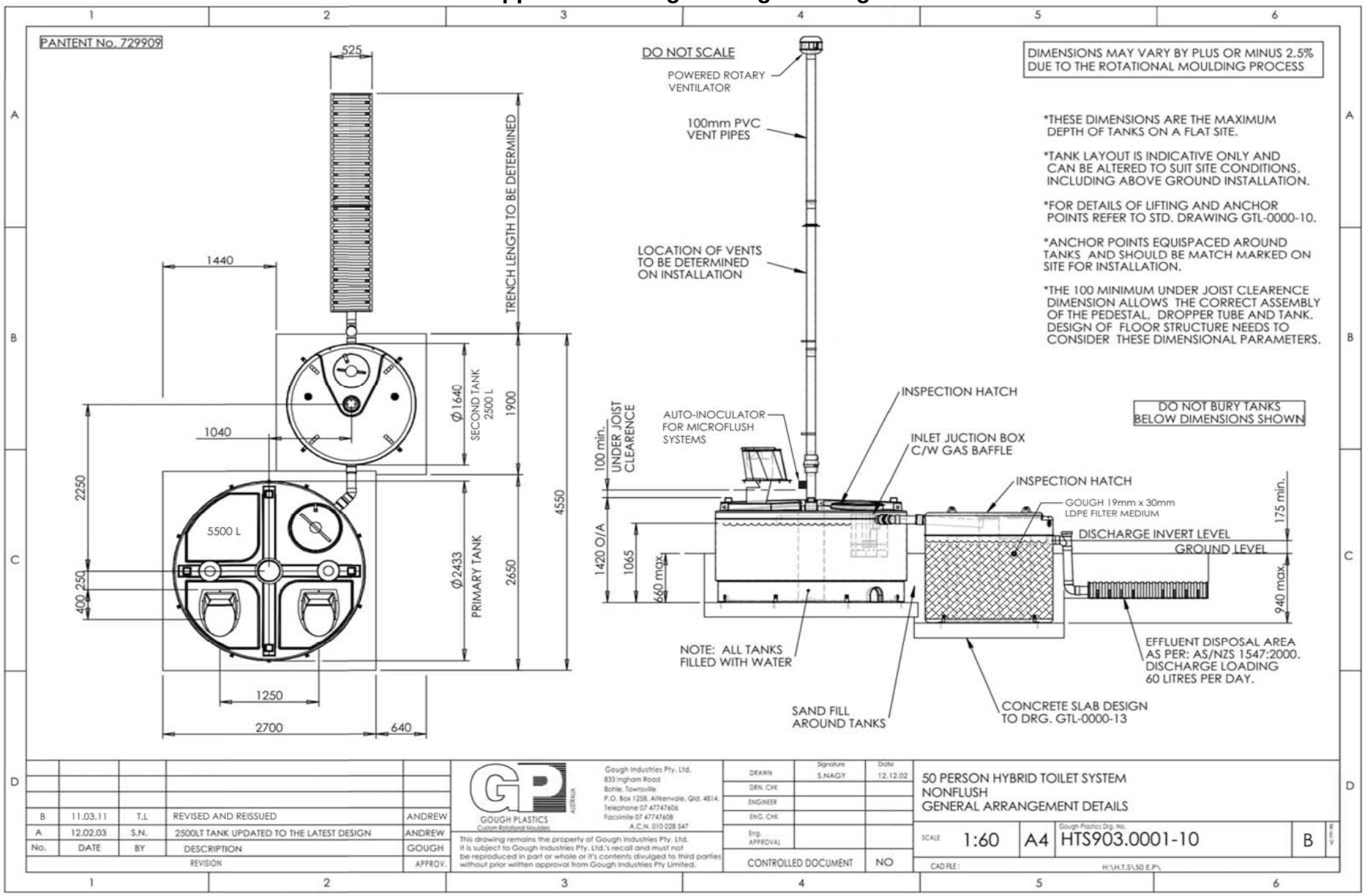
6.1 The effluent is suitable for land application by way of sub-surface trenches, beds, mounds, evapo-transpiration systems subject to consent from the *permit authority* and in accordance with the relevant provisions of *AS/NZS 1547*;

6.2 Where it is not practicable for effluent from the system to be applied in accordance with *AS/NZS 1547* the method of discharge must satisfy contemporary relevant regulatory requirements to the satisfaction of the *permit authority.*

Appendix A

Typical illustration of a Gough Plastics Hybrid Toilet System

Appendix B - Engineering Drawings


PANTENT No. 729909
525
TRENCH LENGTH TO BE DETERMINED
1440
1040
2250
400 250
5500 L
Ø1640
SECOND TANK
2500 L
1900
Ø2433
PRIMARY TANK
2650
4550
1250
2700
640
DO NOT SCALE
POWERED ROTARY VENTILATOR
100mm PVC VENT PIPES
LOCATION OF VENTS TO BE DETERMINED ON INSTALLATION
DIMENSIONS MAY VARY BY PLUS OR MINUS 2.5% DUE TO THE ROTATIONAL MOULDING PROCESS
*THESE DIMENSIONS ARE THE MAXIMUM DEPTH OF TANKS ON A FLAT SITE.
*TANK LAYOUT IS INDICATIVE ONLY AND CAN BE ALTERED TO SUIT SITE CONDITIONS, INCLUDING ABOVE GROUND INSTALLATION.
*FOR DETAILS OF LIFTING AND ANCHOR POINTS REFER TO STD. DRAWING GTL-0000-10.
*ANCHOR POINTS EQUISPACED AROUND TANKS AND SHOULD BE MATCH MARKED ON SITE FOR INSTALLATION.
*THE 100 MINIMUM UNDER JOIST CLEARENCE DIMENSION ALLOWS THE CORRECT ASSEMBLY OF THE PEDESTAL, DROPPER TUBE AND TANK. DESIGN OF FLOOR STRUCTURE NEEDS TO CONSIDER THESE DIMENSIONAL PARAMETERS.
DO NOT BURY TANKS BELOW DIMENSIONS SHOWN
INSPECTION HATCH
AUTO-INOCULATOR FOR MICROFLUSH SYSTEMS
INLET JUCTION BOX C/W GAS BAFFLE
INSPECTION HATCH
GOUGH 19mm x 30mm LDPE FILTER MEDIUM
100 min. UNDER JOIST CLEARENCE
1420 O/A
1065
660 max
175 min.
940 max.
DISCHARGE INVERT LEVEL
GROUND LEVEL
NOTE: ALL TANKS FILLED WITH WATER
SAND FILL AROUND TANKS
CONCRETE SLAB DESIGN TO DRG. GTL-0000-13
EFFLUENT DISPOSAL AREA AS PER: AS/NZS 1547:2000. DISCHARGE LOADING 60 LITRES PER DAY.
B 11.03.11 T.L REVISED AND REISSUED ANDREW
A 12.02.03 S.N. 2500LT TANK UPDATED TO THE LATEST DESIGN ANDREW
No. DATE BY DESCRIPTION GOUGH
REVISION APPROV.
GOUGH PLASTICS
Gough Industries Pty. Ltd.
833 Ingham Road
Bohle, Townsville
P.O. Box 1258, Aitkenvale, Qld. 4814.
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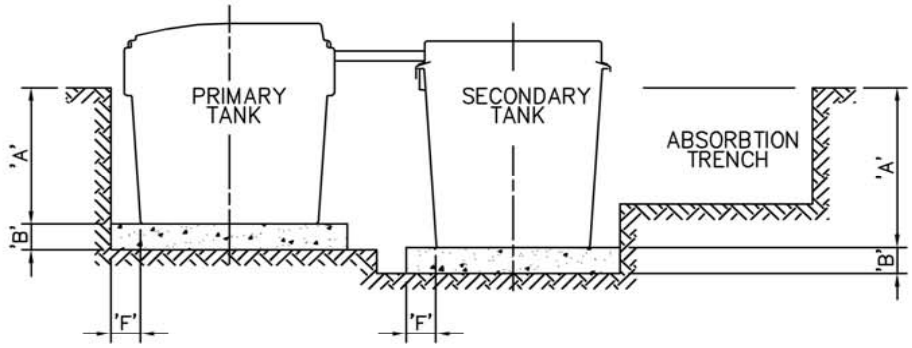
DRAWN S.NAGY 12.12.02
DRN. CHK
ENGINEER
ENG. CHK
Eng. APPROVAL
CONTROLLED DOCUMENT NO
50 PERSON HYBRID TOILET SYSTEM
NONFLUSH
GENERAL ARRANGEMENT DETAILS
SCALE 1:60 A4 HTS903.0001-10 B
CAD FILE: H:\H.T.S\50 E.P\

Date of issue: 27 October 2011

Director, Building Control
delegate of Minister for Workplace Relations

DO NOT SCALE



HYBRID TOILET SYSTEM TANK CAPACITIES		
HYBRID TOILET SYSTEM	PRIMARY TANK	SECONDARY TANK
150 E.P.	3 x 5500 litre	1 x 5500 litre
100 E.P.	2 x 5500 litre	1 x 5500 litre
50 E.P.	1 x 5500 litre	1 x 2500 litre
25 E.P.	1 x 2500 litre	1 x 1000 litre
10 E.P.	1 x 1000 litre CUBE	1 x 600 litre
6 E.P.	1 x 1000 litre CUBE	

THE ABOVE VIEW SHOWS A TYPICAL INSTALLATION WITH A PRIMARY TANK REPORTING TO A SECONDARY TANK, THEN TO A ABSORBTION TRENCH.

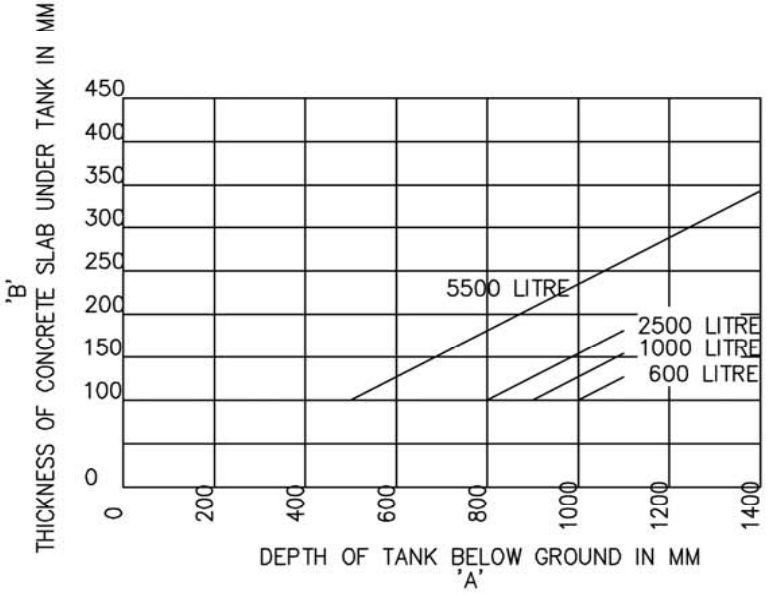
THE DIMENSION 'A' IS THE DEPTH OF THE TANK IN THE GROUND.

THE DIMENSION 'B' IS THE THICKNESS OF THE CONCRETE WHICH THE TANK IS ATTACHED TO. THE MINIMUM THICKNESS OF THE SLAB IS 100mm.

THE DIMENSION 'F' IS THE OUTSTAND AND IS 150mm.

ON THE TABLE OPPOSITE, THE MINIMUM THICKNESS OF THE SLAB CORRESPONDING TO THE TANK SIZE AND ITS DEPTH IN THE GROUND CAN BE DETERMINED.
ANY READING OF SLAB THICKNESS ABOVE THE LINE IS ACCEPTABLE.
THE TANK IS MECHANICALLY ANCHORED TO THE SLAB USING THE MOUNTING POINTS PROVIDED WITH EACH TANK.

REFER TO DRAWING GTL–0000–010 FOR TANK ANCHOR DETAILS.



No.	DATE	BY	DESCRIPTION	GOUGH
			REVISION	APPROV.

GOUGH PLASTICS Custom Rotational Moulders AUSTRALIA

Gough Industries Pty. Ltd.
833 Ingham Road
Bohle, Townsville
P.O. Box 1258, Aitkenvale, Qld. 4814.
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	Signature	Date
DRAWN	S.NAGY	21–6–01
DRN. CHK		
ENGINEER		
ENG. CHK		
SUBMITTED FOR APPR.		
Eng. APPROVAL		

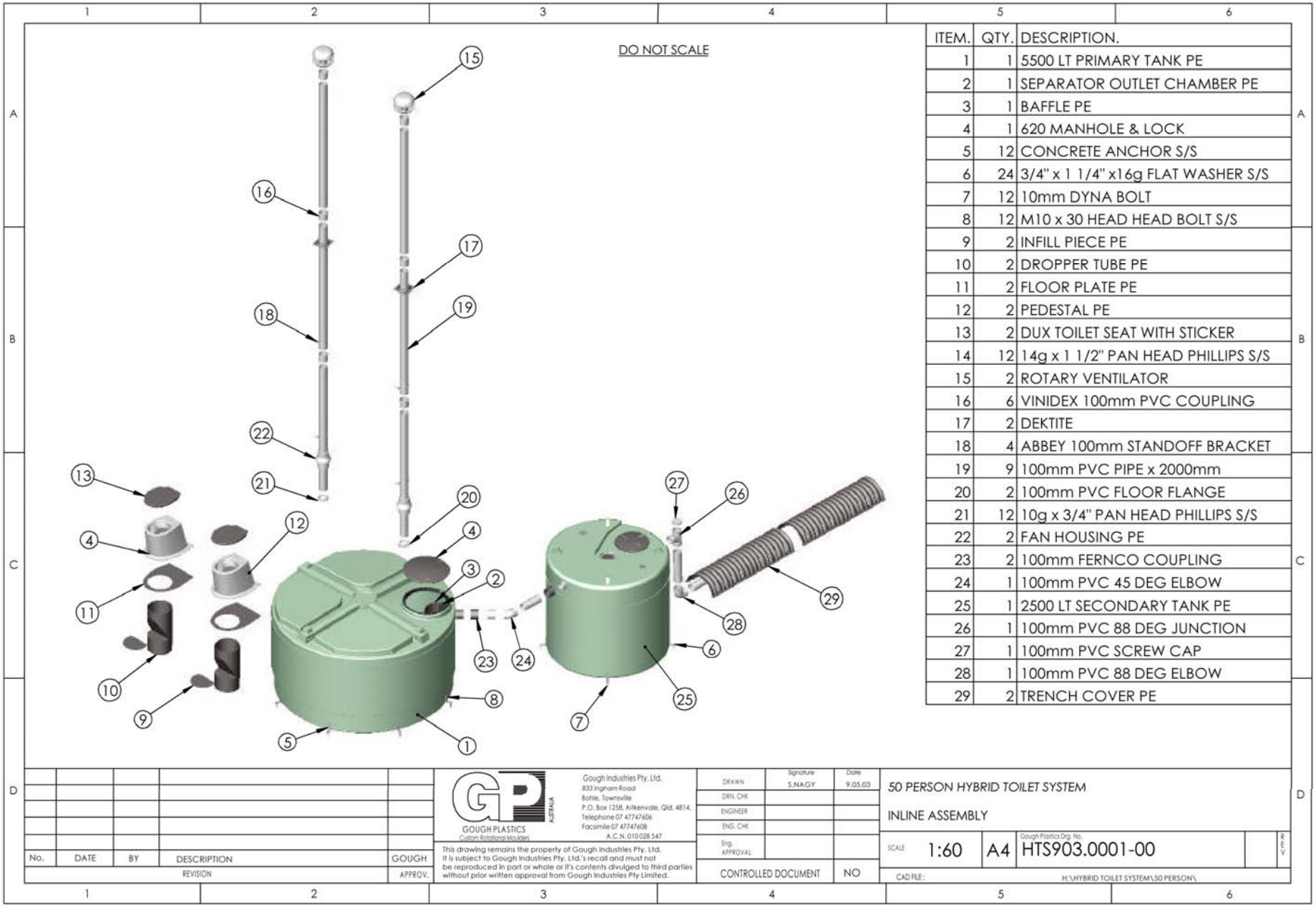
HYBRID TOILET SYSTEM
CONCRETE SLAB DESIGN

SCALE NTS | A4 | Gough Plastics Drg. No. GTL–0000–13 | REV

EDIT DATE= | CAD FILE : H:/HTS/MISC

Date of issue: 27 October 2011

Director, Building Control
delegate of Minister for Workplace Relations


DO NOT SCALE
ITEM. QTY. DESCRIPTION.
1 1 5500 LT PRIMARY TANK PE
2 1 SEPARATOR OUTLET CHAMBER PE
3 1 BAFFLE PE
4 1 620 MANHOLE & LOCK
5 12 CONCRETE ANCHOR S/S
6 24 3/4" x 1 1/4" x16g FLAT WASHER S/S
7 12 10mm DYNA BOLT
8 12 M10 x 30 HEAD HEAD BOLT S/S
9 2 INFILL PIECE PE
10 2 DROPPER TUBE PE
11 2 FLOOR PLATE PE
12 2 PEDESTAL PE
13 2 DUX TOILET SEAT WITH STICKER
14 12 14g x 1 1/2" PAN HEAD PHILLIPS S/S
15 2 ROTARY VENTILATOR
16 6 VINIDEX 100mm PVC COUPLING
17 2 DEKTITE
18 4 ABBEY 100mm STANDOFF BRACKET
19 9 100mm PVC PIPE x 2000mm
20 2 100mm PVC FLOOR FLANGE
21 12 10g x 3/4" PAN HEAD PHILLIPS S/S
22 2 FAN HOUSING PE
23 2 100mm FERNCO COUPLING
24 1 100mm PVC 45 DEG ELBOW
25 1 2500 LT SECONDARY TANK PE
26 1 100mm PVC 88 DEG JUNCTION
27 1 100mm PVC SCREW CAP
28 1 100mm PVC 88 DEG ELBOW
29 2 TRENCH COVER PE
No. DATE BY DESCRIPTION GOUGH
REVISION APPROV.
GOUGH PLASTICS
Custom Rotational Moulders
Gough Industries Pty. Ltd.
833 Ingham Road
Bohle, Townsville
P.O. Box 1258, Aitkenvale, Qld. 4814.
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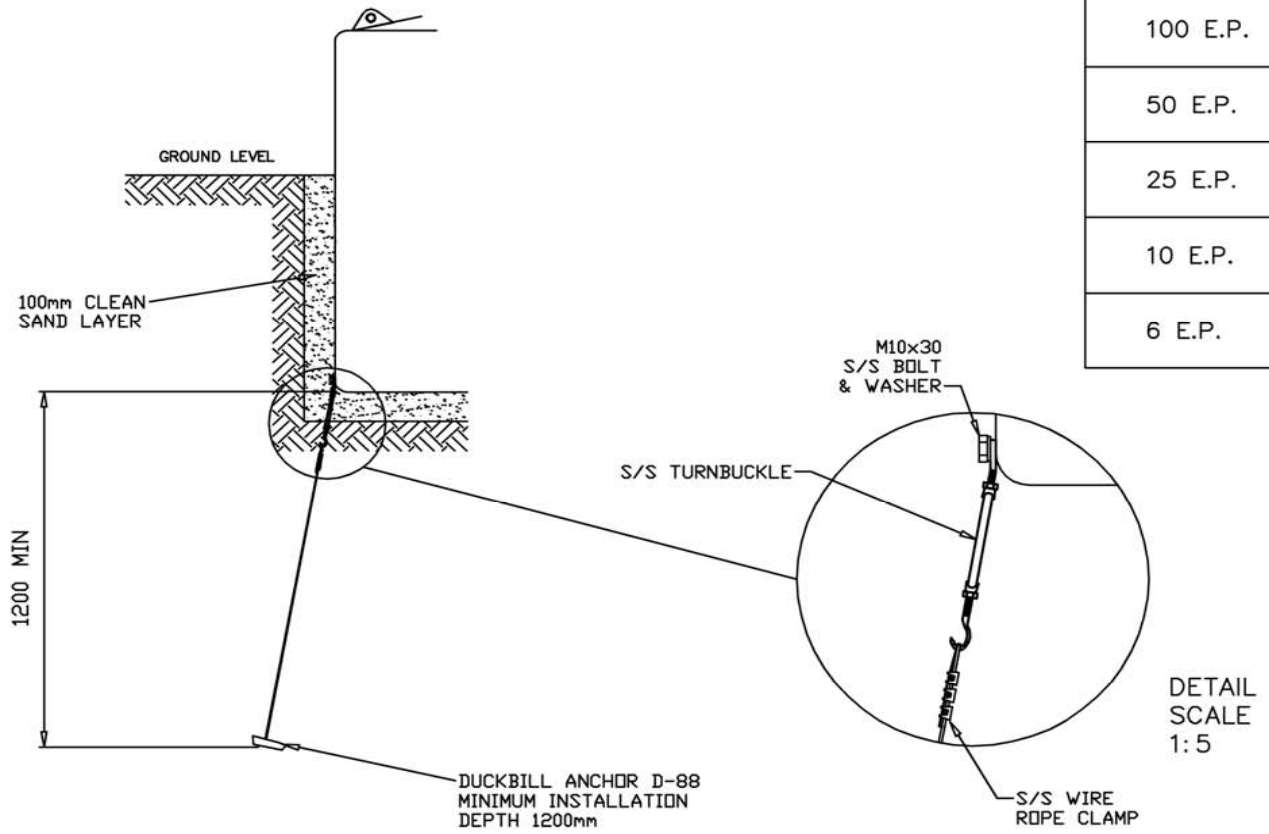
DRAWN S.NAGY 9.05.03
DRN. CHK
ENGINEER
ENG. CHK
Eng. APPROVAL
CONTROLLED DOCUMENT NO
50 PERSON HYBRID TOILET SYSTEM
INLINE ASSEMBLY
SCALE 1:60 A4 HTS903.0001-00
CAD FILE: H:\HYBRID TOILET SYSTEM\50 PERSON\

Date of issue: 27 October 2011	*Director, Building Control* *delegate of Minister for Workplace Relations*

DO NOT SCALE

HOLD DOWN REQUIREMENTS FOR EACH HYBRID TOILET SYSTEM		
HYBRID TOILET SYSTEM	PRIMARY TANK	SECONDARY TANK
150 E.P.	3 x 5500 litre 24 x ANCHOR D-88	1 x 5500 litre 8 x ANCHOR D-88
100 E.P.	2 x 5500 litre 16 x ANCHOR D-88	1 x 5500 litre 8 x ANCHOR D-88
50 E.P.	1 x 5500 litre 8 x ANCHOR D-88	1 x 2500 litre 4 x ANCHOR D-88
25 E.P.	1 x 2500 litre 4 x ANCHOR D-88	1 x 1000 litre 2 x ANCHOR D-88
10 E.P.	1 x 1000 litre CUBE 2 x ANCHOR D-88	1 x 600 litre 2 x ANCHOR D-88
6 E.P.	1 x 1000 litre CUBE 2 x ANCHOR D-88	



No.	DATE	BY	DESCRIPTION	ENG.	GOUGH
C	3.3.03	S.N	LIFTING POINT NOTES REMOVED		
B	10-4-03	SN	LIFTING POINTS CHANGES		
A	19-9-00	SB	FIRST DRAWN		
REVISION				CHK.	APPROV.

GOUGH PLASTICS Custom Rotational Moulders AUSTRALIA

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P.O. Box 1258, Aitkenvale, Qld. 4814
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	Signature	Date
DRAWN	S.NAGY	19-9-00
DRN. CHK		
ENGINEER		
ENG. CHK		
SUBMITTED FOR APPR.		
APPROVAL		

HYBRID TOILET SYSTEM – DUCKBILL ANCHOR QUANTITIES & DETAIL

SCALE NTS | A3 | Gough Plastics Drg. No. GTL-0000-11 | C

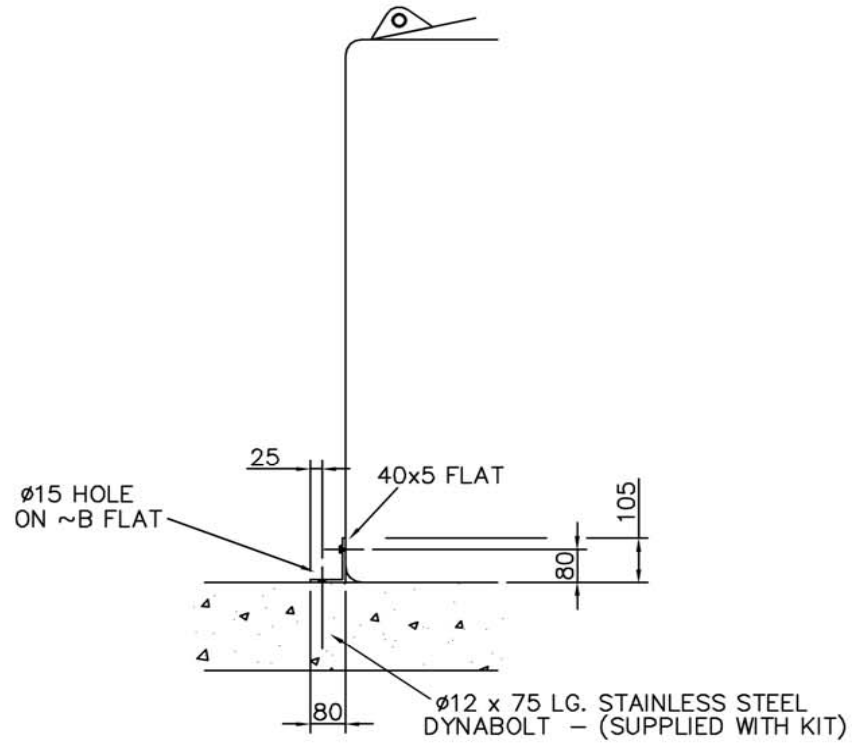
EDIT DATE= | CAD FILE : H: /HTS/MISC

Date of issue: 27 October 2011

Director, Building Control
delegate of Minister for Workplace Relations

DO NOT SCALE

HOLD DOWN REQUIREMENTS FOR EACH HYBRID TOILET SYSTEM		
HYBRID TOILET SYSTEM	PRIMARY TANK	SECONDARY TANK
150 E.P.	3 x 5500 litre 24 x ANCHOR	1 x 5500 litre 8 x ANCHOR
100 E.P.	2 x 5500 litre 16 x ANCHOR	1 x 5500 litre 8 x ANCHOR
50 E.P.	1 x 5500 litre 8 x ANCHOR	1 x 2500 litre 4 x ANCHOR
25 E.P.	1 x 2500 litre 4 x ANCHOR	1 x 1000 litre 2 x ANCHOR
10 E.P.	1 x 1000 litre CUBE 2 x ANCHOR	1 x 600 litre 2 x ANCHOR
6 E.P.	1 x 1000 litre CUBE 2 x ANCHOR	



CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 20 MPa

No.	DATE	BY	DESCRIPTION	ENG.	GOUGH
E	3.3.03	SN	LIFTING POINT NOTES REMOVED		
D	10-4-0[illegible]	SN	LIFTING POINTS CHANGED		
C	8-6-00	SN	MODIFIED FOR NEW 5500Lt, UPDATE MK. A		
B	18-3-9[illegible]	CS	5 E.P. NOW 6 E.P.		
A	20-2-99	CS	FIRST DRAWN		
REVISION				CHK.	APPROV.

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	Signature	Date
DRAWN	C.SETCH	20-2-99
DRN. CHK		
ENGINEER		
ENG. CHK		
SUBMITTED FOR APPR.		
APPROVAL		

HYBRID TOILET SYSTEM – CONCRETE ANCHOR QUANTITIES & DETAIL

SCALE NTS | A3 | Gough Plastics Drg. No. GTL-0000-10 | E

EDIT DATE= | CAD FILE :

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Director, Building Control
delegate of Minister for Workplace Relations

Appendix C

Major Component List
See drawings above for more detailed specifications

- Primary Tank(s), 2433mm diameter
- Secondary Tank, 1640mm diameter
- Pedestal drop toilet; (up to 2 pedestals per primary tank)
- Vent pipe 100mm PVC (on primary tank) with 12 volt powered exhaust fan
- Hand pump and cistern for micro flushing model